

REMARKS

Claims 1 – 6 and 8 – 23 are pending in the present application. Claims 1, 11, 12, and 21 have been amended to more particularly point out and distinctly claim Applicants' invention. Claim 9 has been cancelled with the limitations thereof incorporated into Claims 1 and 21. Claim 24 is newly added.

Independent Claims 1 and 21 have been amended to clarify that the resistors displaced, as in shifted, alternately from each other towards opposite sides of the well in their longitudinal direction relative to an adjacent resistor to reduce coupling between the resistors. The matter regarding the resistors alternate displacement was previously claimed in claim 9 and has only been amended for additional clarification to address the rejection under 35 U.S.C. §112.

Support for the limitation "the arrangement configured to reduce coupling between said resistors" is found throughout the specification, at least at paragraph 10, Background Section, wherein problems of coupling in prior art devices are pointed out: "adjacent n-diffusion resistors mutually influence each other in their respective – effectively – resulting resistance value." Further support for "the arrangement configured to reduce coupling..." can be found, *e.g.*, at paragraph 19, wherein Applicants' disclosed configuration is described as having "a consequence that the resistors – which are connected with one another via the parasitic resistor formed by the wn-well – influence each other only relatively weakly." Further support for the limitation can also be found at paragraphs 34, 35, 36.

Entry of the amendments is respectfully requested pursuant to MPEP 714.13. No new matter has been introduced by these amendments. Applicants respectfully submit that the amendments provided herein place the application in condition for allowance. Alternately the amendments as presented place the application in better condition for appeal. None of the amendments as presented raise an issue of new matter, nor would the amended claims require further consideration or search. Finally, while a dependent claim is added, a finally rejected claim has been cancelled. Reconsideration and allowance of the claims is respectfully requested in view of the above amendments and the following remarks. The remarks are set forth below with reference to the numbered paragraphs in the Final Office Action.

2. Claim Rejections Under 35 U.S.C. § 112

Claims 1- 6 and 8 - 23 were objected to in the Office Action as being indefinite under 35 U.S.C. § 112 second paragraph for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. In particular, the term “the adjacent resistor” was objected to for lacking antecedent basis. In addition, with respect to Claim 9, the terms “displaced alternately to a front end and to a rear end” was objected to in the office action “as not clear as to what the front end or the rear end refers. Finally, with respect to claims 11 and 12, the terminology “smaller than ... of a breadth or width, of a length” was objected to since a breadth or width of a length refers to different dimensions.

In response, Claims 1 and 21 have been amended to clarify the language and correct the antecedent basis. Claim 9 has been cancelled. However, the limitations of claim 9 have amended to clarify that which the Applicants regard as the invention and incorporated into Claims 1 and 21. Claims 11 and 12 have been amended to remove erroneous language from a previous amendment. It is believed that these amendments obviate the rejections under 35 U.S.C. § 112 second paragraph.

4. Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1-6, and 9-23 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,191,964 to Kant, hereinafter referred to as Kant. Applicants respectfully traverse these rejections. Kant is cited in the Office Action as allegedly disclosing the following:

“Kant discloses the claimed the invention at Fig. 3 with resistors 21-23 and well 15. The adjacent resistor is the resistor 22. Each resistor is spaced laterally. Resistor 21 is displaced longitudinally from the right hand end of adjacent resistor 22, while resistor 23 is displaced from resistor 22 to the right. The substrate is a well where claim 3 of Kant discloses a n type with p type resistor diffusion. See also p-type diffusion disclosed for an n-type layer at col. 1, lines 39-35, and col. 2, lines 35-36 – diffusion into a predoped epitaxy layer. That is (as iniewski defines it, see well 3 at Fig. 1, the well is an opposite type doped region like that of Kant.) The latter meets claim 15. For claims 18-19, a parallel device is disclosed at col. 3, lines 30-35. For claims 2-6, the resistors are substantially the same as claimed where the term is broad and without definition. For claim 9, the displacement is as seen where ends are not defined, so that the resistors are displaced to each of its own ends, for example. For claim 10, resistors 22 and 23 meet the claim, where “approximately” is broad. For claims 11-12, and 22-23, the distance is met in

terms of length where b appears less than one fifth than the length 22 or the length is disclosed as varied as compared to the distance, so that a longer resistor with the minimum distance is contemplated, col. 2, lines 60-65. For claims 13-14, the doping is relative and met by claim 3 of Kant. For claims 16 and 20, the MSI, microprocessor circuits, memory, or SSI are deemed signal driver devices since they produce signals and the whole circuit is connected together.”

Applicant respectfully submits that the Examiner has mischaracterized the teachings of Kant. “To anticipate a claim under 35 U.S.C. § 102, a single source must contain all of the elements of the claim”. MPEP §2131. Lewmar Marine Inc. v. Barient, Inc., 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), cert. denied, 484 U.S. 1007 (1988). “The identical invention must be shown **in as complete detail** (emphasis added) as is contained in the ... claim” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). MPEP §2131. Moreover, the single source must disclose all of the claimed elements “arranged as in the claim.” Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. Titanium Metals Corp. v. Banner, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

First, Applicants direct the Examiner’s attention to note that the Examiner has made reference to both the Iniewski reference and the Kant reference in a rejection purportedly made pursuant to 35 U.S.C. §102. Therefore, Applicants are unsure if the Examiner is making an improper rejection under §102 or a rejection under §103. Should the arguments herein be unpersuasive, Applicants respectfully request a new action with a clarified rejection and be afforded the opportunity to properly respond.

Applicants respectfully submit that the Examiner has mischaracterized the teachings of Kant. Moreover, Applicants respectfully submit that the cited references fail to teach each of the elements of the claimed invention and therefore, the Examiner has not made a *prima facie* case of anticipation of present claims 1-6, and 8, and 10-23.

Claims 1 and 21 have been amended to clarify that the resistors displaced, as in shifted, alternately from each other towards opposite sides of the well in their longitudinal direction relative to an adjacent resistor to reduce coupling between the resistors. A cursory review of the

distinction of Fig. 1, the prior art, and Fig. 2 makes evident the contrast related to the displacement in the longitudinal direction of the resistors in relation to the adjacent resistor. In addition, in the specification at paragraphs 40 and 41, it is described that in the embodiment shown, the metal pads (14 and 15) of the resistor are displaced from the adjacent metal pads and therefore the resistors are displaced.

Claim 21, an independent claim, has been similarly amended to overcome the rejection.

For at least the foregoing reasons, reconsideration and withdrawal of the rejections of Claims 1 and 21 over the teachings of Kant under 35 U.S.C. § 102(b) are requested.

In view of the above discussion, Claims 2-6, 8, 10 – 20, 22, and 23 depend from Claim 1, whether directly or indirectly, and include all of the corresponding limitations thereof. Claim 1 is not taught by Kant, therefore, Claims 2-6, 8, 10 – 20, 22, and 23 cannot be taught by Kant either. Thus, Claims 2-6, 8, 10 – 20, 22, and 23 are allowable, the rejections are improper and they should be withdrawn.

Further, with respect to the dependent claims 2-6, 8, 10 - 20, 22, and 23 it is unclear from the Office Action, how Kant anticipates the claims. Applicants respectfully submit that the explanation in the Office Action merely attempts to paraphrase the terminology of claims without providing any clear indication as to where in the cited reference the elements of the claimed invention are allegedly taught. For example, with respect to Claim 2, the Examiner does not indicate where in Kant there is any teaching to suggest the claimed elements “wherein the resistors all have substantially the same length.” Similarly, with respect to claim 3 the Examiner does not indicate where in Kant there is any teaching to suggest “wherein the resistors all have substantially the same breadth or width, respectively”. With respect to claims 2 – 6 the Examiner merely states that Kant discloses resistors “are substantially the same as claimed where the term is broad and without definition. Applicants respectfully disagree. There is no teaching whatsoever in Kant to suggest the elements of either claim. Therefore, because Kant does not teach or disclose an element of the claimed invention it cannot anticipate the Applicants’ claims. Thus, Claims 2 – 6 are allowable, the rejections are improper and should be withdrawn.

Applicants further direct the Examiner’s attention to not that no specific rejection was provided for Claim 8, though grouped with the other dependent claims. Applicants therefore

presume Claim 8 is allowable. Should the Examiner disagree Applicants respectfully request clarification of the status of Claim 8 and an appropriate opportunity and statutory time period to respond.

In another example, with respect to Claim 10, Applicants respectfully disagree with the Examiner's assertions. The claim terms are to be given their broadest reasonable interpretation **not in contravention of the specification**. Applicants respectfully submit that there is no reasonable interpretation of the displacement of the resistors 22 and 23 as suggested by the Examiner that satisfies the claimed terminology "displaced **approximately a length** of a second resistor of said resistors, wherein said first resistor is adjacent to said second resistor". Once again, because Kant does not teach or disclose an element of the claimed invention it cannot anticipate the Applicants' claims. Thus, Claim 10 is allowable, the rejection is improper and should be withdrawn.

6. Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-6, and 8-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,636,831 to Ono, hereinafter referred to as Ono in view of U.S. Patent No. 6,104,277 to Iniewski et al., hereinafter referred to as Iniewski or Kant. Applicants respectfully traverse. Ono is cited in the Office Action for disclosing:

"Ono discloses, except explicit mention of all the resistors in a well, the claimed invention at Figs. 4-5 where the lateral direction is up and down in the figures and the longitudinal direction is the direction left to right, and each adjacent resistor R is offset longitudinally. Iniewski disclosed employing a plurality of resistors in a single well at Fig. 4 in order that the resistors be isolated at col. 3, lines 40-65. Ono discloses replacing prior art resistors such as those at Figs. 3A-3B that are similar to the resistors of Iniewski, in order to make the resistors more densely packed, further suggesting the combination, see col. 5, lines 35-51. Ono also discloses that the resistors are all in the same areas, col. 5, lines 20-35, thus further suggesting the same well. Kant also discloses at claim 3 and col. 3, lines 25-45 employing resistors in the same well to save space so that such a well would have been obvious. In claims 2-6, there are at least five resistors of substantially the same length, width, resistance structure, and depth. In claim 8, Figs. 4-5 show at least five resistors. In claim 9, the resistors are displaced alternately to a front end and a rear end where two of them align near the front and ends, such as the two in the middle, or they are displaced to their own ends. For claim 10, the top two resistors in the middle meet the claim where a first resistor where the R points is displaced approximately a length of a second

resistor where the W points. Claim 9 is met for those two resistors also. In claims 11-12, the distance is smaller than one fifth of a length for example. For claims 13-14, the resistors are relatively strongly or weakly doped as compared to a contact or substrate, where they are diffusion resistors, col. 2, lines 55-60, as that is how diffusion resistors are made, Iniewski discloses n-type diffused resistors since there are only two types, p or n. In claim 15, the resistors are diffusion as noted. In claim 16, the drivers are disclosed at col. 5, lines 1-20. In claim 17, the pads are the CW contact windows as noted at the top of col. 4. In claims 22-23, the distances are smaller than one fifth as depicted at Figs. 4-5. For claims 18-20, it is well known that connecting resistors in parallel lowers the total resistance, the examiner taking Official Notice to the effect, so that connecting the resistors in parallel or series would have been obvious in order to alter the resistance in the desired manner.

It is suggested in the office action that Ono suggest the combination of with Kant or Iniewski "in order to make the resistor more densely packed." Applicants respectfully disagree.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness. *In re Fine*, U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Applicants respectfully contend that neither Ono nor Kant or Iniewski, whether alone, or in combination, teach or disclose each element of the invention. Applicants first, respectfully direct the Examiner's attention to note that Claims 1 and 21 have been amended to further clarify the invention. Neither Ono, Kant, nor Iniewski teach or disclose, "each of the resistors is alternately displaced toward opposite sides of the well in the longitudinal direction of the resistors in relation to an adjacent resistor to reduce coupling between said resistors". Therefore,

neither Ono, Kant, nor Iniewski can render the Applicants' claim unpatentable. Thus, Claims 1 and 21 are allowable, the rejections are improper and should be withdrawn.

The amendments and arguments presented herein are made for the purposes of better defining the invention, rather than to overcome the rejections for patentability. The claims have not been amended to overcome the prior art and therefore, no presumption should attach that either the claims have been narrowed over those earlier presented, or that subject matter or equivalents thereof to which the Applicants are entitled has been surrendered.

CONCLUSION

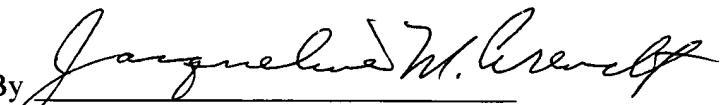
It is believed that the Amendment and the foregoing remarks have addressed the issues raised by the Examiner in these paragraphs.

It is believed that the foregoing amendments and remarks are fully responsive to this Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance of Claims 1 – 6, 8, and 10 – 23 are requested.

If a telephone conference would expedite the prosecution of this application, the Examiner is invited to call the undersigned at (978) 897-8400.

Respectfully submitted,

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